USAToday - GM installs 'black boxes' in cars

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WASHINGTON - (AP) General Motors Corp. has installed devices in hundreds of thousands of its cars that collect data when a car crashes much like a black box on an airplane.

Doctors, engineers and government officials say the information can help them better understand how the human body tolerates car crashes. They plan to apply that knowledge to construct safer cars, improve the treatment of crash victims and write government auto safety standards that would better protect passengers in auto accidents.

The existence of the so-called auto black box system also is raising sensitive privacy questions about whether such information can be used in litigation.

The most sophisticated version of GM's device, known formally as a sensing and diagnostic module, is in hundreds of thousands of GM cars from the 1999 model year: the Buick Century, Park Avenue and Regal; the Cadillac Eldorado, DeVille and SeVille; the Chevrolet Camaro and Corvette and the Pontiac Firebird.

The module will be in almost all GM vehicles in a few years, the company says.

The module, part of the air bag sensing system, stores information in the few seconds before a car sensor identifies a crash and fires the air bags. The data includes the speed of the car, whether the driver was wearing a seat belt, when an air bag deployed and whether the driver used the brakes.

GM has quietly installed different versions of the sensing system on some cars throughout the 1990s, but the modules have become more sophisticated over time. Their existence became public in a paper written by GM and government engineers and presented at a conference last month.

Up until now, government crash investigators could only take an educated guess at the speed of a car involved in an accident based on evidence at the crash scene.

GM is currently the only automaker that makes such data and a tool to

recover it available to researchers, the paper said. GM hopes to have laptops available so government crash investigators can download data independently of the company by the end of the year.

Bob Lange, director of engineering safety for GM, said he wanted to use the device to collect crash injury information from all age groups so that autos could be designed to further "reduce the likelihood of injuries."

The module helped GM figure out last year why some air bags were deploying inadvertently, leading to a recall of more than 850,000 Cavaliers and Sunfires to change a computer software program.

"There's an incredible opportunity to improve safety," said Dr. Jeffrey Augenstein of the Crash Injury Research and Engineering Network. Augenstein said if doctors know more about crashes, they can target their treatment of patients, in some cases including checks for serious injuries they might have missed.

John Hinch, a research engineer at the National Highway Traffic Safety Administration and one of the authors of the paper, said he saw "lots of potential" for the module's data.

"If we can understand crashes better, we can have better sensors (in automobiles), better air bags," Hinch said. "NHTSA can build better (safety) rules and have better information for consumers."

Insurers also seem to favor so-called black boxes for cars, in part because it would help them determine who is at fault in accidents. But they say state courts will first have to sort through how such devices could be used in litigation and whether they are reliable.

Norman Jolly, an attorney who has litigated auto cases, said he has already seen auto companies try to use air bag deployment information stored on a car computer chip as a defense in lawsuits.

Jolly and Richard Schiffrin, another lawyer involved in auto lawsuits, believe companies will not be able to keep such information private.

"It's inevitable that information from a technology such as this would find its way into the public domain -- either through litigation arising out of an automobile accident or an investigation," Schiffrin said.

Ford Motor Co. said a more limited version of the module was on all its 1999 vehicles, but the company is unable to retrieve the data for customers.

DaimlerChrysler AG also has a limited version that can detect whether an air bag deploys but a spokesman said the company was still considering other applications of the technology.